

**NOVEL CELL-SURFACE ESTROGEN RECEPTOR AND RELATED  
COMPOSITIONS AND METHODS**

5

**Abstract of the Disclosure**

10 This invention provides an isolated mammalian cell-surface  
estrogen receptor characterized by (a) a non-stereospecific  
binding affinity for 17 $\alpha$ -estradiol and 17 $\beta$ -estradiol; (b) at  
least one epitope in common with the ligand-binding domain of  
ER- $\alpha$ ; and (c) increased presence at caveolar or caveolar-like  
microdomains of cells on which the receptor is present. This  
invention further provides related methods for assaying  
15 compounds, activating the MAP kinase pathway of a cell, and  
delaying the onset of or treating disorders. Finally, this  
invention provides related articles and compositions of matter.